Applicant:

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For:

LOADING SYSTEM FOR SECURING CARGO IN THE BED

OF A VEHICLE

A loading system for securing cargo, the system comprising: 1 1. at least two spaced forwardly located pin and receptacle assemblies each 2 3 including: a pin biased outward with respect to a housing fixed to one of the 4 cargo and a vehicle, and 5 a receptacle on the other of the cargo and the vehicle for receiving 6 the pin to pre-load the cargo and to secure the cargo in vertical and 7 transverse directions; and at least two spaced rearwardly located tensioning systems each including: 9 a member securable to one of the cargo and the vehicle, 10 a pivoting clamp handle secured to the other of the cargo and the 11 vehicle for tensioning the member, and 12 a member guide which orients the member at an angle with respect 13 to the vertical direction to secure the cargo in both the horizontal 14 and vertical directions. 15

2. The system of claim 1 further including low friction strips running in the horizontal direction between the bed and the cargo assisting in deployment and stowage of the cargo.

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The system of claim 2 in which selected strips include a ridge for securing 3. 1 2 the cargo in the transverse direction. The system of claim 1 in which the cargo is a foldable command table 4. 1 including an aft section, a forward section, and an intermediate section hinged to the 2 forward section and the aft section, and at least one bracket upstanding from the proximal 3 end of the forward section supporting the distal end of the aft section when the aft section 4 is folded up and over the forward section. 5 The system of claim 4 in which the pin and receptacle assemblies are 1 5. located at the proximal end of the forward section and the clamping systems are located 2 on the intermediate section. 3 The system of claim 1 in which the pin includes a tapered tip. 6. 1 The system of claim 1 in which a plurality of washers are disposed about 1 7. the pin and received in the housing for biasing the pin. 2 The system of claim 1 in which the receptacle is in the form of a block on 8. 1 the cargo with a cavity therein for receiving the pin. 2 The system of claim 1 further including a clamp plate with an ear to which 9. 1 the handle is pivotably connected. 2

- 1 10. The system of claim 9 further including a strap guide is fixed to the clamp 2 plate.
- 1 11. The system of claim 9 further including a tensioner pivotably connected to the handle.
- 1 12. The system of claim 9 in which the clamp plate is secured to the cargo.

1	13. A loading system for securing a folding command table in the bed of a
2	vehicle, the folding command table including an aft section, a forward section, an
3	intermediate section hinged to the forward section and the aft section, and at least one
4	bracket upstanding from the proximal end of the forward section supporting the distal end
5	of the aft section when the aft section is folded up and over the forward section, the
6	loading system comprising:
7	at least two spaced forwardly located pin and receptacle assemblies each
8	including:
9	a receptacle on the table located proximate the intersection of the
10	bracket and the forward section of the table, and
11	a pin biased outward with respect to a housing fixed to the forward
12	section of the vehicle bed, the pin received in the receptacle to
13	secure the table in the vertical and transverse directions; and
14	at least two spaced rearwardly located clamping systems each including:
15	a clamp plate secured to the intermediate section of the table,
16	a clamp handle pivotable with respect to the clamp plate,
17	a strap tensioner pivotably connected to the handle,
18	a strap extending between the strap tensioner and the vehicle, and
19	a strap guide fixed to the clamp plate below the clamp handle to
20	orient the strap to secure the cargo in both the vertical and
21	horizontal directions.

14. The system of claim 13 further including low friction strips running in the

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2	horizontal direction between the bed and the cargo assisting in deployment and storage of				
3	the cargo.				
1	15.	The system of claim 14 in which selected strips include a ridge for			
2	securing the	cargo in the transverse direction.			
1	16.	The system of claim 13 in which the pin includes a tapered tip.			
1	17.	The system of claim 13 in which a plurality of washers are disposed about			
2	the pin and received in the housing for biasing the pin.				
1	18.	The system of claim 13 in which the receptacle is in the form of a block			
2	with a cavity therein for receiving the pin.				
1	19.	The system of claim 14 in which the clamp plate includes an ear to which			

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the handle is pivotably connected.

l	20. A loading system comprising:
2	at least one pin and receptacle assembly including a pin biased outwardly
3	with respect to a housing and a receptacle for receiving the pin to pre-load cargo and
4	secure the cargo in the vertical and transverse directions; and
5	at least one tensioning system for securing the cargo in both the horizontal
6	and vertical directions.
1	21. The loading system of claim 20 in which the tensioning system includes:
2	a strap,
3	a pivoting clamp handle for tensioning the strap, and
4	a strap guide which orients the strap at an angle to secure the cargo in both
5	the horizontal and vertical directions.

1	22. A loading system comprising:
2	a first assembly configured to pre-load cargo in the horizontal direction
3	and to secure the cargo in the vertical and transverse directions; and
4	a tensioning assembly including a strap, a pivoting clamp handle for
5	tensioning the strap, and a strap guide which orients the strap at an angle to secure the
6	cargo in both the vertical and horizontal connections.

1 23. The loading system of claim 22 in which the first assembly includes a deflectable pin and receptacle assembly.

1	24.	A loading system comprising:		
2		first means for securing cargo in the vertical and transverse directions and		
3	for pre-loading the cargo in the horizontal direction; and			
4		second means for securing the cargo in both the horizontal and vertical		
5	directions.			
1	25.	The loading system of claim 24 in which the first means is a forwardly		
2	located deflectable pin and receptacle assembly.			
1	26.	The loading system of claim 24 in which the second means is a rearwardly		
2	located tensio	ning system.		